

Remarks

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and the following remarks. Claims 7-11 and 18-24 are pending in the application. Claims 7-11 and 18-24 are rejected. No claims have been allowed. Claims 7, 18, and 21 are independent.

Cited Art

The Action cites Wilson, U.S. Patent Publication No. 2002/0087698 (hereinafter "Wilson"); Gase, U.S. Patent No. 6,363,081 (hereinafter "Gase"); Welch et al., U.S. Patent No. 5,862,335 (hereinafter "Welch"); Block et al., U.S. Patent No. 7,433,955 (hereinafter "Block"); Morris et al., U.S. Patent No. 7,069,333 (hereinafter "Morris"); and Clark, U.S. Patent No. 6,598,068 (hereinafter "Clark").

Claim Rejections under 35 U.S.C. § 101

The Action rejects claims 18-20 under 35 USC 101 as being directed to non-statutory subject matter. Applicants respectfully disagree. However, to expedite prosecution, Applicants have amended claim 18, from which claims 19 and 20 depend, to recite "A computer-readable storage medium"

Applicant's representative is concerned that addition of "non-transitory" will be interpreted as indefinite in the future. Instead, it is preferred to add the word "storage" which is a physical object and has routinely been used to overcome any rejections under 35 U.S.C. § 101. It is respectfully requested that the rejection therefore be withdrawn.

Claim Rejections under 35 U.S.C. § 103(a)

Under 35 U.S.C § 103(a), the Action rejects claims 7, 8, 10 and 18-20 over Wilson in view of Gase and Welch; claim 9 over Wilson in view of Gase, Welch and Block; claim 11 over Wilson in view of Gase, Welch and Morris; claims 21 and 24 over Wilson in view of Gase, and claims 22 and 23 over Wilson in view of Gase and Clark. Applicants respectfully submit the claims are allowable over the cited art, because the cited art does not teach or suggest each element of the rejected claims.

Claims 7, 8, 10 and 18-20

As amended, independent claim 7 recites in part:

- saving in a data structure maintained by the connection manager, a first connection request data element comprising:
 - an identifier of the first application from which the first request for a connection was received; and
 - a value representing a time of the first request;

...

- saving in the data structure, a second connection request data element comprising:

- an identifier of the second application from which the second request for a connection was received; and
 - a value representing a time of the second request;

...

- deleting from the data structure, the connection request data element corresponding to the application from which the request for the disconnection was received;

- determining that a threshold period of time has elapsed for at least one of the connection request data elements based on the corresponding value representing the time of the request;

- checking whether the application associated with the at least one connection request data element is still running after the threshold period of time has elapsed; and

- disconnecting the physical hardware connection upon a disconnection request when the deleted connection request data element is the last connection request data element in the data structure, and when the deleted connection request data element is not the last connection request data element, maintaining the connection.

As amended, independent claim 18 recites in part:

- using a connection manager, storing in a data structure identifiers of multiple other processes requesting to communicate with remote resources via the connection along with time values corresponding to requests made by the multiple other processes, the first process sharing the physical hardware connection with the multiple other processes and wherein the first process, the multiple other processes and the connection manager are located on the same computer;

- using the connection manager, removing an identifier of a first process from the stored identifiers when the first process requests a disconnection;

- determining that a threshold period of time has elapsed for a second process based on the respective time value corresponding to the request made by the second process;

- checking whether the second process is still running after the threshold period of time has elapsed;

removing an identifier of the second process from the stored identifiers based on the checking;
maintaining the connection when a process requests a disconnection when stored identifiers indicate another process is communicating with remote resources via the connection; and
disconnecting the connection when a process requests a disconnection when stored identifiers indicate no other process is communicating with remote resources via the connection.

Applicants respectfully disagree that the combination of Wilson, Gase and Welch teaches or suggests the above cited language of claims 7 and 18, respectively. Wilson and Gase do not teach or suggest storing time values, or values representing times of connection requests. The Action states that Welch teaches a "connection record storing not only an identifier associated with a connection request but also timestamp records relating to the time at which the connection began and the time of last activity." The Action cites column 6 of Welch, which states in part, "File transfer records 91 are sent to the archive when the file transfer has ended by a 'rude interrupt;' that is a long period of time has past without the exchange of a packet for the particular file id." However, a decision about *when to send file transfer records to an archive* based on a timestamp, as described in Welch, does not teach or suggest "checking whether the application associated with the at least one connection request data element is still running after the threshold period of time has elapsed" (claim 7), or "checking whether the second process is still running after the threshold period of time has elapsed" and "removing an identifier of the second process from the stored identifiers based on the checking (claim 18). Therefore, even if the disclosure of Wilson and Gase were combined with the disclosure of Welch, this combination still would not teach or suggest the above cited language of claims 7 and 18, respectively.

For at least these reasons, claims 7 and 18 should be allowable. Each of claims 8 and 10 depends from claim 7 and should be allowable for at least the reasons given above in support of claim 7. Furthermore, claim 10 recites in part, "wherein creating the connection comprises obtaining connection information from a system registry on the client computer and using the connection information obtained from the system registry to establish the connection, wherein the connection information comprises a connection method and connection rules, wherein the connection method is dial-up, wherein the connection information obtained from the system registry comprises an indicator of a custom dialer implemented as a DLL to be used in

establishing the connection, wherein the connection rules comprise telephone number dialing rules.” Wilson, Gase and Welch do not teach or suggest this language of claim 10, and do not mention a registry at all.

Claims 19 and 20 depends from claim 18 and should be allowable for at least the reasons given above in support of claim 18.

The rejection of claims 7, 8, 10, 18-20 under 35 U.S.C. § 103(a) should be withdrawn. Such action is respectfully requested.

Claim 9

The Action rejects claim 9 under 35 U.S.C. § 103(a) over Wilson in view of Gase, Welch and Block. As explained above, claim 7, from which claim 9 depends, is allowable over Wilson in view of Gase and Welch. A combination of Wilson, Gase, Welch and Block also does not teach or suggest the recited language. Accordingly, the rejection of claim 9 should be withdrawn. Such action is respectfully requested. Applicants will not belabor the merits of the separate patentability of this dependent claim.

Claim 11

The Action rejects claim 11 under 35 U.S.C. § 103(a) over Wilson in view of Gase, Welch and Morris. As explained above, claim 7, from which claim 11 depends, is allowable over Wilson in view of Gase and Welch. A combination of Wilson, Gase, Welch and Morris also does not teach or suggest the recited language. Accordingly, the rejection of claim 11 should be withdrawn. Such action is respectfully requested. Applicants will not belabor the merits of the separate patentability of this dependent claim.

Claims 21 and 24

As amended, independent claim 21 recites in part:

using a centralized connection manager, maintaining a record in a data structure at the centralized connection manager of which applications are using the shared connection, the data structure comprising data elements corresponding to connection requests that have been added to the data structure in response to connection method calls;

in response to a disconnection request from either the first or second application, deleting a data element from the data structure at the centralized

connection manager, the data element corresponding to the application from which the disconnection request was received;

determining whether any data elements corresponding to connection requests remain in the data structure; and

based on the determining, maintaining the connection while at least one of the data elements corresponding to connection requests remains in the data structure and otherwise disconnecting the physical hardware connection.

Applicants respectfully disagree that the combination of Wilson and Gase teaches or suggests the above cited language of claim 21. In rejecting claim 21, the Action cites Gase, which mentions a "distribution list." The Examiner states that the system in Gase "maintains a distribution list of registered processes that are sharing the connection (see col. 3, lines 38-45, read as a data structure of data elements corresponding to application connection requests comprising: an identifier of the application for which the request for a connection was received)." *See* Action at page 17.

However, the "distribution list" in Gase is maintained *by the first application* to make a connection via a "contested port" and not the recited "centralized connection manager" in claim 21. *See* Gase at col. 3, l. 43-45. Therefore, even if the disclosure of Wilson were combined with the disclosure of Gase, this combination still would not teach or suggest, for example, "using a centralized connection manager, maintaining a record in a data structure at the centralized connection manager of which applications are using the shared connection, the data structure comprising data elements corresponding to connection requests that have been added to the data structure in response to connection method calls," as recited in claim 21.

The art applied by the examiner does not teach or suggest each element of claim 21. Claim 24 depends from claim 21, and should be allowable for at least the reasons given above in support of claim 21. Applicants will not belabor the merits of the separate patentability of this dependent claim.

Claims 22 and 23

The Action rejects claims 22 and 23 under 35 U.S.C. § 103(a) over Wilson in view of Gase and Clark. As explained above, claim 21, from which claims 22 and 23 depend, is allowable over Wilson in view of Gase. Although Clark mentions that "a timer mechanism is used to cause the priority thread to periodically check whether any threads are waiting to use the

resource” (*see* Clark at abstract), the combination of Wilson, Gase and Clark does not teach or suggest, for example, “using a centralized connection manager, maintaining a record in a data structure at the centralized connection manager of which applications are using the shared connection, the data structure comprising data elements corresponding to connection requests that have been added to the data structure in response to connection method calls” in combination with the other elements recited in claim 21. Accordingly, the rejection of claims 22 and 23 should be withdrawn. Such action is respectfully requested. Applicants will not belabor the merits of the separate patentability of these dependent claims.

Interview Request

If the claims are not found by the Examiner to be allowable, the Examiner is requested to call the undersigned attorney to set up an interview to discuss this application.

Conclusion

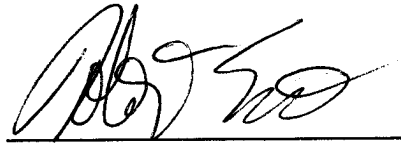
The claims in their present form should be allowable. Such action is respectfully requested.

Respectfully submitted,

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